

# Watershed Report

## Little Missouri River-Ouachita River

### 0804010309

The Center for Advanced Spatial Technologies at the University of Arkansas has developed the Arkansas Automated Reporting and Mapping System with funding from the Arkansas 85th General Assembly through the Arkansas Natural Resource Commission.

The 308 ten-digit watershed units and the 1556 twelve-digit watershed units were delineated by the Natural Resources Conservation Service, a division of the US Department of Agriculture.

For all watersheds that cross the Arkansas border, only the Arkansas portion of the watershed was used for mapping and statistical reporting.

## Watershed Summary (10 Digit HUC)

### *Little Missouri River-Ouachita River (0804010309)*

#### **Area Summary**

Area - Square Miles.....	288.63
Area - Acres.....	186882.18

#### **Elevation Summary**

	<u>Meters</u>	<u>Feet</u>
Elevation Maximum.....	140.00	459.00
Elevation Minimum.....	35.00	115.00
Elevation Average.....	71.00	233.00

#### **Land Use / Land Cover for 1999**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	3.40	1.18%
Bare.....	.03	.01%
Water.....	4.45	1.54%
Herbaceous.....	3.88	1.35%
Forest.....	246.43	85.53%
Agri - Crops.....	.43	.15%
Agri - pasture.....	29.50	10.24%

#### **Land Use / Land Cover for 2004**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	7.79	2.70%
Bare.....	.18	.06%
Water.....	4.48	1.55%
Herbaceous.....	9.36	3.25%
Forest.....	244.97	85.01%
Agri - Crops.....	.37	.13%
Agri - pasture.....	21.02	7.29%

#### **Land Use / Land Cover for 2006**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	9.40	3.20%
Bare.....	.14	.05%
Water.....	3.31	1.13%
Herbaceous.....	21.58	7.36%
Forest.....	236.97	80.79%
Agri - Crops.....	.89	.30%

Agri - pasture.....: 15.88 5.41%

**Land Use / Land Cover Change from 1999 to 2004**

Area in Acres	Change TO						
	Urban	Bare	Water	Herbaceous	Forest	Agri-Crop	Agri-Pasture
FROM Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	0.00	0.00	0.00	6.22	3.41
Water	9.23	6.02	-.--	86.51	479.30	2.21	21.68
FROM Herb	247.88	6.22	18.26	-.--	569.22	5.22	316.12
Forest	1593.64	38.14	329.17	4747.81	-.--	28.10	792.61
Agri-Crops	0.0	18.47	10.84	45.96	132.27	-.--	32.72
Agri-Pasture	858.44	16.66	32.31	2128.74	2754.35	48.97	-.--

# Sub-Watershed Summary (12 Digit HUC)

## Garland Creek-Little Missouri River (080401030902)

### Area Summary

Area - Square Miles.....	53.30
Area - Acres.....	34511.49

### Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	139.00	456.00
Elevation Minimum.....	51.00	167.00
Elevation Average.....	80.00	262.00

### Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.11	2.05%
Bare.....	.03	.06%
Water.....	.42	.78%
Herbaceous.....	.64	1.18%
Forest.....	33.69	62.34%
Agri - Crops.....	.12	.22%
Agri - pasture.....	18.03	33.36%

### Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	2.61	4.83%
Bare.....	.10	.19%
Water.....	.36	.67%
Herbaceous.....	2.01	3.72%
Forest.....	36.41	67.36%
Agri - Crops.....	.16	.30%
Agri - pasture.....	12.40	22.94%

### Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	3.26	6.03%
Bare.....	.05	.09%
Water.....	.24	.44%
Herbaceous.....	6.75	12.49%
Forest.....	33.78	62.52%
Agri - Crops.....	.31	.57%
Agri - pasture.....	9.64	17.84%

### Land Use / Land Cover Change from 1999 to 2004

Area in Acres	Change TO						
	Urban	Bare	Water	Herbaceous	Forest	Agri-Crop	Agri-Pasture
Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	0.00	0.00	0.00	6.22	3.41
Water	1.40	3.61	-.--	5.02	142.30	2.01	9.43
FROM Herb	35.73	.60	2.21	-.--	167.19	0.00	100.15
Forest	454.61	13.65	35.73	474.28	-.--	18.87	209.74
Agri-Crops	0.0	17.66	9.43	1.20	13.85	-.--	10.44
Agri-Pasture	572.03	10.24	10.04	1055.74	1720.29	22.28	-.--

**Beech Creek-Ouachita River  
(080401030906)**

**Area Summary**

Area - Square Miles.....	26.60
Area - Acres.....	17224.93

**Elevation Summary**

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	123.00	403.00
Elevation Minimum.....	40.00	131.00
Elevation Average.....	67.00	220.00

**Land Use / Land Cover for 1999**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.16	.62%
Bare.....	.00	-.--%
Water.....	.03	.12%
Herbaceous.....	.16	.62%
Forest.....	24.24	94.03%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	1.19	4.62%

**Land Use / Land Cover for 2004**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.26	1.01%
Bare.....	.01	.04%
Water.....	.02	.08%
Herbaceous.....	.75	2.91%
Forest.....	23.70	91.90%
Agri - Crops.....	.01	.04%
Agri - pasture.....	1.04	4.03%

**Land Use / Land Cover for 2006**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.26	1.01%
Bare.....	.01	.04%
Water.....	.01	.04%
Herbaceous.....	1.91	7.40%
Forest.....	22.83	88.45%
Agri - Crops.....	.02	.08%
Agri - pasture.....	.77	2.98%

**Land Use / Land Cover Change from 1999 to 2004**

<u>Area in Acres</u>	<u>Change TO</u>						
	<u>Urban</u>	<u>Bare</u>	<u>Water</u>	<u>Herbaceous</u>	<u>Forest</u>	<u>Agri-Crop</u>	<u>Agri-Pasture</u>
Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	0.00	0.00	0.00	0.00	0.00
Water	.80	0.00	-.--	11.84	1.81	0.00	.60
FROM Herb	0.0	.20	0.00	-.--	4.21	.20	27.30
Forest	21.88	6.02	3.81	459.83	-.--	.20	90.32
Agri-Crops	0.0	0.00	0.00	.60	.60	-.--	.40
Agri-Pasture	1.00	.40	2.61	105.57	48.37	2.21	-.--

**Horse Branch-Little Missouri River  
(080401030907)**

**Area Summary**

Area - Square Miles.....	37.74
Area - Acres.....	24434.05

**Elevation Summary**

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	101.00	331.00
Elevation Minimum.....	39.00	128.00
Elevation Average.....	58.00	190.00

**Land Use / Land Cover for 1999**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.43	1.14%
Bare.....	.00	-.--%
Water.....	.55	1.46%
Herbaceous.....	.72	1.91%
Forest.....	33.02	87.70%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	2.93	7.78%

**Land Use / Land Cover for 2004**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.00	2.66%
Bare.....	.02	.05%
Water.....	.62	1.65%
Herbaceous.....	1.52	4.04%
Forest.....	32.32	85.82%
Agri - Crops.....	.06	.16%
Agri - pasture.....	2.12	5.63%

**Land Use / Land Cover for 2006**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.12	2.97%
Bare.....	.01	.03%
Water.....	.21	.56%
Herbaceous.....	3.21	8.52%
Forest.....	31.46	83.54%
Agri - Crops.....	.11	.29%
Agri - pasture.....	1.54	4.09%

**Land Use / Land Cover Change from 1999 to 2004**

<u>Area in Acres</u>	<u>Change TO</u>						
	<u>Urban</u>	<u>Bare</u>	<u>Water</u>	<u>Herbaceous</u>	<u>Forest</u>	<u>Agri-Crop</u>	<u>Agri-Pasture</u>
FROM Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	0.00	0.00	0.00	0.00	0.00
Water	1.20	.40	-.--	8.43	120.02	0.00	1.40
FROM Herb	28.70	.60	2.21	-.--	127.05	.80	44.16
Forest	241.66	8.63	82.69	781.97	-.--	1.40	99.95
Agri-Crops	0.0	0.00	0.00	.20	.40	-.--	0.00
Agri-Pasture	47.17	1.20	10.04	372.72	191.48	8.03	-.--

**Little Missouri River Outlet  
(080401030908)**

**Area Summary**

Area - Square Miles.....	30.39
Area - Acres.....	19680.44

**Elevation Summary**

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	120.00	394.00
Elevation Minimum.....	35.00	115.00
Elevation Average.....	50.00	164.00

**Land Use / Land Cover for 1999**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.08	.26%
Bare.....	.00	-.--%
Water.....	.41	1.35%
Herbaceous.....	.11	.36%
Forest.....	29.48	97.07%
Agri - Crops.....	.06	.20%
Agri - pasture.....	.23	.76%

**Land Use / Land Cover for 2004**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.11	.36%
Bare.....	.01	.03%
Water.....	.39	1.28%
Herbaceous.....	.59	1.94%
Forest.....	29.16	96.05%
Agri - Crops.....	.01	.03%
Agri - pasture.....	.09	.30%

**Land Use / Land Cover for 2006**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.11	.36%
Bare.....	.00	-.--%
Water.....	.09	.30%
Herbaceous.....	1.11	3.66%
Forest.....	28.99	95.49%
Agri - Crops.....	.02	.07%
Agri - pasture.....	.04	.13%

**Land Use / Land Cover Change from 1999 to 2004**

<u>Area in Acres</u>	<u>Change TO</u>						
	<u>Urban</u>	<u>Bare</u>	<u>Water</u>	<u>Herbaceous</u>	<u>Forest</u>	<u>Agri-Crop</u>	<u>Agri-Pasture</u>
Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	0.00	0.00	0.00	0.00	0.00
Water	0.0	.80	-.--	47.17	88.51	0.00	2.21
FROM Herb	0.0	2.81	1.81	-.--	18.67	.80	1.81
Forest	1.61	2.81	64.63	759.49	-.--	.60	27.30
Agri-Crops	0.0	0.00	0.00	34.92	2.81	-.--	0.00
Agri-Pasture	.40	0.00	0.00	77.67	44.16	.20	-.--

**Lower White Oak Creek  
(080401030905)**

**Area Summary**

Area - Square Miles.....:	19.35
Area - Acres.....:	12527.70

**Elevation Summary**

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....:	122.00	400.00
Elevation Minimum.....:	42.00	138.00
Elevation Average.....:	71.00	233.00

**Land Use / Land Cover for 1999**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.47	2.43%
Bare.....:	.00	-.--%
Water.....:	.07	.36%
Herbaceous.....:	.58	3.00%
Forest.....:	17.77	91.79%
Agri - Crops.....:	.00	-.--%
Agri - pasture.....:	.47	2.43%

**Land Use / Land Cover for 2004**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	1.34	6.92%
Bare.....:	.00	-.--%
Water.....:	.07	.36%
Herbaceous.....:	.72	3.72%
Forest.....:	16.91	87.30%
Agri - Crops.....:	.01	.05%
Agri - pasture.....:	.32	1.65%

**Land Use / Land Cover for 2006**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	1.61	8.32%
Bare.....:	.00	-.--%
Water.....:	.02	.10%
Herbaceous.....:	1.38	7.13%
Forest.....:	16.19	83.63%
Agri - Crops.....:	.03	.15%
Agri - pasture.....:	.13	.67%

**Land Use / Land Cover Change from 1999 to 2004**

<u>Area in Acres</u>	<u>Change TO</u>						
	<u>Urban</u>	<u>Bare</u>	<u>Water</u>	<u>Herbaceous</u>	<u>Forest</u>	<u>Agri-Crop</u>	<u>Agri-Pasture</u>
Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	0.00	0.00	0.00	0.00	0.00
Water	1.00	0.00	-.--	5.02	5.42	0.00	1.00
FROM Herb	117.62	.80	2.21	-.--	77.07	1.81	38.94
Forest	365.90	1.40	9.83	378.34	-.--	.80	35.33
Agri-Crops	0.0	0.00	0.00	0.00	0.00	-.--	0.00
Agri-Pasture	76.47	0.00	.20	57.20	18.06	.20	-.--

**Upper White Oak Creek  
(080401030904)**

**Area Summary**

Area - Square Miles.....	43.69
Area - Acres.....	28286.54

**Elevation Summary**

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	122.00	400.00
Elevation Minimum.....	54.00	177.00
Elevation Average.....	81.00	266.00

**Land Use / Land Cover for 1999**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.48	1.10%
Bare.....	.00	-.--%
Water.....	2.76	6.30%
Herbaceous.....	1.43	3.26%
Forest.....	38.33	87.49%
Agri - Crops.....	.03	.07%
Agri - pasture.....	.78	1.78%

**Land Use / Land Cover for 2004**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.92	2.10%
Bare.....	.01	.02%
Water.....	2.83	6.46%
Herbaceous.....	2.06	4.70%
Forest.....	37.01	84.44%
Agri - Crops.....	.05	.11%
Agri - pasture.....	.95	2.17%

**Land Use / Land Cover for 2006**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.02	2.33%
Bare.....	.03	.07%
Water.....	2.62	5.98%
Herbaceous.....	2.23	5.09%
Forest.....	37.17	84.80%
Agri - Crops.....	.13	.30%
Agri - pasture.....	.63	1.44%

**Land Use / Land Cover Change from 1999 to 2004**

<u>Area in Acres</u>	<u>Change TO</u>						
	<u>Urban</u>	<u>Bare</u>	<u>Water</u>	<u>Herbaceous</u>	<u>Forest</u>	<u>Agri-Crop</u>	<u>Agri-Pasture</u>
Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	0.00	0.00	0.00	0.00	0.00
Water	.20	0.00	-.--	5.02	49.98	.20	3.81
FROM Herb	58.01	.60	9.63	-.--	103.57	1.40	84.90
Forest	133.47	.40	123.04	1122.77	-.--	1.81	173.61
Agri-Crops	0.0	.40	.40	4.82	9.23	-.--	2.01
Agri-Pasture	21.28	0.00	5.42	94.53	45.36	6.42	-.--



**McNeeley Creek  
(080401030903)**

**Area Summary**

Area - Square Miles.....	42.19
Area - Acres.....	27315.80

**Elevation Summary**

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	107.00	351.00
Elevation Minimum.....	48.00	157.00
Elevation Average.....	66.00	216.00

**Land Use / Land Cover for 1999**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.29	.69%
Bare.....	.00	-.--%
Water.....	.02	.05%
Herbaceous.....	.09	.21%
Forest.....	40.78	97.12%
Agri - Crops.....	.02	.05%
Agri - pasture.....	.79	1.88%

**Land Use / Land Cover for 2004**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.67	1.60%
Bare.....	.01	.02%
Water.....	.03	.07%
Herbaceous.....	1.08	2.57%
Forest.....	39.57	94.28%
Agri - Crops.....	.03	.07%
Agri - pasture.....	.58	1.38%

**Land Use / Land Cover for 2006**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.86	2.05%
Bare.....	.01	.02%
Water.....	.01	.02%
Herbaceous.....	2.13	5.07%
Forest.....	38.60	91.93%
Agri - Crops.....	.04	.10%
Agri - pasture.....	.34	.81%

**Land Use / Land Cover Change from 1999 to 2004**

<u>Area in Acres</u>	<u>Change TO</u>						
	<u>Urban</u>	<u>Bare</u>	<u>Water</u>	<u>Herbaceous</u>	<u>Forest</u>	<u>Agri-Crop</u>	<u>Agri-Pasture</u>
Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	0.00	0.00	0.00	0.00	0.00
Water	.40	0.00	-.--	2.41	5.62	0.00	.20
FROM Herb	1.61	.40	0.00	-.--	20.87	.20	2.61
Forest	161.97	1.20	1.61	653.31	-.--	1.20	77.27
Agri-Crops	0.0	0.00	0.00	1.81	.40	-.--	1.00
Agri-Pasture	45.16	1.61	1.61	78.28	101.36	2.61	-.--

**Wilson Creek-Little Missouri River  
(080401030901)**

**Area Summary**

Area - Square Miles.....	35.37
Area - Acres.....	22901.23

**Elevation Summary**

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	140.00	459.00
Elevation Minimum.....	57.00	187.00
Elevation Average.....	84.00	276.00

**Land Use / Land Cover for 1999**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.38	1.08%
Bare.....	.00	-.--%
Water.....	.19	.54%
Herbaceous.....	.15	.43%
Forest.....	29.12	82.92%
Agri - Crops.....	.20	.57%
Agri - pasture.....	5.08	14.46%

**Land Use / Land Cover for 2004**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.88	2.50%
Bare.....	.02	.06%
Water.....	.16	.46%
Herbaceous.....	.63	1.79%
Forest.....	29.89	85.06%
Agri - Crops.....	.04	.11%
Agri - pasture.....	3.52	10.02%

**Land Use / Land Cover for 2006**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.16	3.30%
Bare.....	.03	.09%
Water.....	.11	.31%
Herbaceous.....	2.86	8.14%
Forest.....	27.95	79.56%
Agri - Crops.....	.23	.65%
Agri - pasture.....	2.79	7.94%

**Land Use / Land Cover Change from 1999 to 2004**

Area in Acres	Change TO						
	Urban	Bare	Water	Herbaceous	Forest	Agri-Crop	Agri-Pasture
FROM Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	0.00	0.00	0.00	0.00	0.00
Water	4.21	1.20	-.--	1.61	65.63	0.00	3.01
FROM Herb	6.22	.20	.20	-.--	50.58	0.00	16.26
Forest	212.55	4.01	7.83	117.82	-.--	3.21	79.08
Agri-Crops	0.0	.40	1.00	2.41	104.97	-.--	18.87
Agri-Pasture	94.94	3.21	2.41	287.02	585.27	7.02	-.--